

AMENDMENT TO THE CLAIMS

1-51. (Canceled)

5 52. (New) A system for distributed monitoring and estimation of traffic flow, said system comprising:

an application for maintaining a land-based transportation model having a plurality of transportation routes and a plurality of parameters related to traffic flow in said transportation routes, wherein said parameters are used to statistically estimate the velocity of current and expected traffic in said transportation routes; and

10 a plurality of prosumers capable of exchanging information with said application, wherein said information is related to traffic flow along said transportation routes, wherein each of said prosumers has a wireless device communicatively connected to said application, and wherein said wireless device allows the same prosumer to report said information related to traffic flow experienced by the same prosumer to said application,

15 wherein said application combines said information reported by said plurality of prosumers and updates said transportation model based on said combined information from said prosumers, wherein said updating comprises changing said parameters of said transportation model, wherein said parameters are related to speeds and latencies in said transportation routes, and wherein said application sends information related to said updated transportation model to said prosumers.

53. **(New)** The system as set forth in claim 52, wherein said wireless device of each of said prosumers allows the same prosumer to:

- (i) evaluate one or more possible transportation plans;
- (ii) select one of said possible plans; and
- (iii) send said selected plan to said application,

wherein said application evaluates said selected transportation plan, estimates expected waypoint times along said plan, and communicates said expected waypoint times to the same prosumer.

54. **(New)** The system as set forth in claim 53, wherein said wireless device of each of said prosumers can monitor actual waypoint times and report said actual waypoint times to said application, and wherein said application updates said transportation model based on said actual waypoint times.

55. **(New)** The system as set forth in claim 53, wherein said application suggests an alternate plan to one of said prosumers.

56. **(New)** The system as set forth in claim 52, wherein said wireless device of each of said prosumers allows the same prosumer to:

- (i) evaluate one or more possible transportation plans;
- (ii) select one of said possible plans;

- (iii) compute one or more expected waypoint times, wherein said expected waypoint times are computed based on said updated parameters provided by said application; and
- (iv) monitor one or more actual waypoint times.

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57. (New) The system as set forth in claim 52, wherein said information exchanged between said prosumers and said application comprises impediments that negatively affect traffic flow along said transportation routes.

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58. (New) The system as set forth in claim 52, wherein said information exchanged between said prosumers and said application comprises current or expected weather.

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59. (New) The system as set forth in claim 52, wherein each of said prosumers has a GPS device, wherein said GPS device receives location information of the same prosumer, wherein said location information is transmitted to said application, and wherein said application updates said transportation model based on said location information of each of said prosumers.

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60. (New) The system as set forth in claim 52, wherein said transportation model comprises a plurality of distributed regional submodels.

61. (New) The system as set forth in claim 52, wherein said transportation routes of said transportation model comprises a mass transit rail system, a mass transit bus system, multiple limited access thoroughfare, and multiple streets.

5 62. (New) The system as set forth in claim 52, wherein said parameters of said transportation model include speeds and latencies in said transportation routes for each of a plurality of different vehicle classes, and wherein said vehicle classes comprise mass transit vehicles, railcars, buses, commercial vehicles, passenger vehicles, and bicycles.

10 63. (New) The system as set forth in claim 52, wherein said information exchanged between said prosumers and said application is in XML format.

64. (New) A system for distributed monitoring and estimation of traffic flow, said
15 system comprising:

an application for maintaining a land-based transportation model having a plurality of transportation routes and a plurality of parameters related to traffic flow in said transportation routes, wherein said parameters are used to statistically estimate the velocity of current and expected traffic in said transportation
20 routes; and

a plurality of prosumers, wherein each of said prosumers has a GPS device and a wireless device, wherein said GPS device receives location information of the same prosumer, wherein said wireless device is for communication between the same prosumer and said application, and wherein said wireless device

intermittently reports said location information and traffic information experienced by the same prosumer to said application,

wherein said application aggregates said location and said traffic information reported by said plurality of prosumers and updates said transportation model based on said aggregated information, wherein said updating comprises changing said parameters of said transportation model, wherein said application identifies changes to the traffic flow in an area where one of said prosumers is in or soon to enter based on said updated transportation model, and wherein said traffic flow changes are sent to the same prosumer.

65. (New) A system for distributed monitoring and estimation of air traffic flow, said system comprising:

an application for maintaining an air-based transportation model having a plurality of air routes and a plurality of parameters related to traffic flow in said air routes, wherein said parameters are used to statistically estimate the velocity of current and expected traffic in said air routes; and

a plurality of prosumers capable of exchanging information with said application, wherein said information is related to traffic flow along said air routes, wherein each of said prosumers has a wireless device communicatively connected to said application, and wherein said wireless device allows the same prosumer to report said information related to traffic flow experienced by the same prosumer to said application,

wherein said application combines said information reported by said plurality of prosumers and updates said transportation model based on said combined

information from said prosumers, wherein said updating comprises changing said parameters of said transportation model, wherein said parameters are related to speeds and latencies in said air routes, and wherein said application sends information related to said updated transportation model to said prosumers.

66. **(New)** The system as set forth in claim 65, wherein said wireless device of each of said prosumers allows the same prosumer to:

- (i) evaluate one or more possible transportation plans;
- (ii) select one of said possible plans;
- (iii) send said selected plan to said application,

wherein said application evaluates said selected transportation plan, estimates expected waypoint times along said plan, and communicates said expected waypoint times to the same prosumer.

67. **(New)** The system as set forth in claim 66, wherein said wireless device of each of said prosumers can monitor actual waypoint times and report said actual waypoint times to said application, and wherein said application updates said transportation model based on said actual waypoint times.

68. **(New)** The system as set forth in claim 66, wherein said application suggests an alternate plan to one of said prosumers.

69. **(New)** The system as set forth in claim 65, wherein said wireless device of each of said prosumers allows the same prosumer to:

(i) evaluate one or more possible transportation plans;

(ii) select one of said possible plans;

5 (iii) compute one or more expected waypoint times, wherein said expected waypoint times are computed based on said updated parameters provided by said application; and

(iv) monitor one or more actual waypoint times.

10 70. **(New)** The system as set forth in claim 65, wherein said information exchanged between said prosumers and said application comprises current or expected weather.

15 71. **(New)** The system as set forth in claim 65, wherein said parameters of said transportation model is selected from the group consisting of visibility, wind, temperature, altitude, precipitation, icing, flight restrictions, notices to airmen, hazardous weather, mountain obscuration, instrument meteorological conditions, airport facilities, equipment outages, and pilot reports.

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